

B1  
Amend

depositing by physical vapor deposition a barrier layer in said contact opening and on at least a portion of said semiconductor substrate, wherein said depositing said barrier layer includes depositing a titanium layer and depositing a titanium nitride layer on said titanium layer; depositing a contact metal on said barrier layer within said contact opening; removing a substantial portion of said contact metal and said barrier layer from said semiconductor substrate to form a contact plug within said contact opening; and subjecting said contact plug to a temperature sufficient to anneal said barrier layer.

(2) Kindly cancel Claim 2 without prejudice or disclaimer.

(3) Kindly amend Claim 12 as follows:

Sub  
C2

12. (Twice Amended) A process for fabricating an integrated circuit, comprising:  
forming an active device on a semiconductor substrate;  
forming a contact opening in a dielectric deposited on said active device, said contact opening in electrical contact with said active device;  
depositing by physical vapor deposition a barrier layer in said contact opening and on at least a portion of said semiconductor substrate, wherein said depositing said barrier layer includes depositing a titanium layer and depositing a titanium nitride layer on said titanium layer;  
depositing a contact metal on said barrier layer within said contact opening;  
removing a substantial portion of said contact metal and said barrier layer from said semiconductor substrate to form a contact plug within said contact opening; and  
subjecting said contact plug to a temperature sufficient to anneal said barrier layer.

B2

(4) Kindly cancel Claim 14 without prejudice or disclaimer.

(5) Kindly amend Claim 24 as follows:

Sub C3  
24. (Amended) A process for fabricating a contact in a semiconductor substrate having a contact opening formed therein, comprising:

B3  
depositing a barrier layer in said contact opening and on at least a portion of said semiconductor substrate, wherein said depositing said barrier layer includes depositing a titanium layer and depositing a titanium nitride layer on said titanium layer;

depositing a contact metal on said barrier layer within said contact opening;

removing a substantial portion of said contact metal and said barrier layer from said semiconductor substrate to form a contact plug within said contact opening; and

subjecting said contact plug to a temperature sufficient to anneal said barrier layer.